

P- loop

```

Ae-dNK MAAAI GPERLG---VAGKKPFTVE EGNIGSGKTTFLNHFEKFKDRV CLLTEPVEKWRDC
Ag-dNK -MPPIASEK LG---ASGKKPFTVE EGNIGSGKTTFLNHFKKFND- ICLLTEPVEKWRNC
Dm-dNK MAEAASCARKG TKYAECTQPFTVL EGNIGSGKTTFLNHFEKFKND ICLLTEPVEKWRNV
Bm-dNK ----MS-----ANNVKPFTVE EGNIGSGKTTFLNHFEKFKND- ILLTEPVEKWRDL
                                     * * * * *

```

```

Ae-dNK GGVNLLDLMYKEPHRWAMPFOYVTLTMLNMHTYQTDKSVKLMERSLFSARYCFVENMLA
Ag-dNK GGVNLLDLMYKESHRWAMPFOYVTLTMLDMHTCQTDKSVKLMERSLFSARNCFVESMLA
Dm-dNK NGVNLLDLMYKDPKKWAMPFOSYVTLTMLQSHTAPTNNKKIKIMERSLFSARYCFVENMRR
Bm-dNK KGCNLLDLMYKEPEKWAMTFOSYVSLTMLDMHRRPAPTVPKLMERSLFSARYCFVEHIMR
          * * * * *

```

```

Ae-dNK S GSLHQGMYNILQEWYEFIHANIHIQADLIVYLRTSPEIVYERMKKRARSEESCVPKLYL
Ag-dNK S GSLHQGMYNVLQEWYDFICCNIIHIQADLIVYLOTSPENVYERMKKRARSEESCVPLEYL
Dm-dNK NGSLEQGMYNITLQEWYKFIIESIHQADLITLRLTSPEVAYERIRQARSEESCVPKLYL
Bm-dNK NNTLHPAQFAVLDEWERFIQHNIPIDADLIVYLKTSPTSIVYQRIKKRARSEESCVPKLYL
                                     * * *

```

```

Ae-dNK QELHELHENWLIHGTFPRV-APVLVLADADLDLHNISSEYKRSETSILK---PILIDNTNQ
Ag-dNK KELHELHENWLIHGASPRP-APVLVLNADLDLNTIGA EYERSETSILK---PILIENTNQ
Dm-dNK QELHELHEDWLIHQRRFQS-CKVLVLADADLDLENIGTEYQRSESSIFD---AIS-SNOOP
Bm-dNK EELHRLHEDWLINRIHAECAPAPVLVLADADLDLSQITDEYKRSEHQILRKAVNVVMSPNK

```

nuclear import signal

```

Ae-dNK H----PIIASPSKRSRTEF--
Ag-dNK H----AILTSPAKRAKTDf--
Dm-dNK S----PVLVSPSKRQRVAR--
Bm-dNK HSPKKPISTPIKITPHMRIL

```

Fig. 1